Clayton Environmental Consultants LABTAX

Attention: Joe Zdenek

Client: City of Seattle, E.S.D.

Location: Fire Station #39

Log # 23961

Job / PO # 9846257

SAMPLE #: 1 LAB#: 23961.1 **SAMPLE LOCATION: Chimney, west side**

SOURCE: Mortar

No Asbestos Detected

HOMOGENEOUS

Asbestos	Asbestos %	non-asbestos fibers	% other fibers	nonfibrous components	nonfibrous %
				Filler & Binder	100

Description: Tan coarse chunk

Note:

PRELIMINARY REPORT

Laboratory Data Sheet is for lab use and faxing only. The final report will follow in the mail.

Verified by: DA 5/18/99

ANALYZED BY:
Patricia Lukens
on: 5/18/99

Clayton Environmental Consultants **LABFAX**

Log #19791
ANALYZED BY Crystal Wright
ON 5/14/97
Job / PO #91031014

Client: City of Seattle, D.A.S.
Location: Firestation #39

SAMPLE #: 1 LAB#: 791.1 **SAMPLE LOCATION: Old boiler opening, interior pipe**
SOURCE : Insulation

No Asbestos Detected

HOMOGENEOUS

Asbestos	Asbestos %	non-asbestos fibers	% other fibers	nonfibrous components	nonfibrous %
		Cellulose	2	Vermiculite	71
				Non-Fibrous Tremolite	2
				Filler & Binder	25

Description: Brown micaceous powdery material

Note:

Post-it® Fax Note 7671 | Date | # of pages ▶
To Joe | From
Co./Dept. | Co.
Phone # | Phone #
Fax # 386 9030 | Fax #

PRELIMINARY REPORT
Laboratory Data Sheet is for lab use and faxing only. The final report will follow in the mail.
Verified by: _____

Seattle Regional Office

4636 E. Marginal Way S.
Suite 215
Seattle, WA 98134
(206) 763-7364
Fax (206) 763-4189

Clayton
ENVIRONMENTAL
CONSULTANTS

April 16, 1997

Mr. Joe Zdenek
City of Seattle-DAS Facilities Management
610 3rd Ave. Basement Level
Seattle, Washington 98104

RE: Background Air Monitoring for Asbestos
Firestation #39
Clayton Project #75-97281.00

Dear Mr. Zdenek

Per your request, Clayton Environmental Consultants conducted ambient air sampling to characterize background levels of asbestos at Firestation #39 on April 4, 1997.

The samples were collected on 25 millimeter mixed cellulose ester filters (≤0.8 um pore) then analyzed using Phase Contrast Microscopy (PCM) in accordance with the NIOSH 7400 method. Samples were collected according to WAC-296-62-07735, Appendix A-WISHA reference method.

Results of air monitoring showed that airborne levels of asbestos in the living quarters, and the hose tower did not exceed the E.P.A. recommended level of 0.010 fibers per cubic centimeter of air (0.010 f/cc) recommended for safe public occupancy. Attached are the results from our Clayton lab in Seattle.

If you have any questions regarding this project or require any additional information, please feel free to call me at (206) 763-7364.

Sincerely,
Clayton Environmental Consultants

Rich Carlson
Industrial Hygiene Technician

RC/A97
Attachments

Clayton
ENVIRONMENTAL CONSULTANTS
formerly HAZCON
4636 E. Marginal Way So. Suite 215
Seattle, WA 98134
(206) 763-7364

AIR SAMPLE DATA

AN AIHA ACCREDITED LABORATORY #414

Log # T8446
Project # 75-97281.00.000
Number of Samples: 4

Client: **City of Seattle** PO #:
Job Location: **Fire Station #39** Abatement Firm:

SAMPLE # CN191
SAMPLE TYPE: **Area**
PUMP # HF004
PRIORITY: Regular

DATE: 4/4/97
CONTROLS: N/A, N/A, N/A

LOCATION: **Living Quarters, weight room**
OBSERVATIONS: **Background sampling**

NAME: SS# CERT#

TIME		FLOW RATE (LPM)		VOLUME	Fibers/	Fiber Concentration		
						Fibers/	Fibers/	*FIBERS/
Start: 08:55	Total	Start: 12.00	Avg=	Liters=	Fields	mm²	Filter	CC:
End: 10:28	93	End: 12.00	12.00	1116	8 / 100	10.2	3,924	0.004

Method: NIOSH 7400, A rules (Issue #2, 8/15/94) Limit of Detection: 5 2,000

Footnote: F5-Fibers greater than 5µm in length.

SAMPLE # CN270
SAMPLE TYPE: **Area**
PUMP # HF007
PRIORITY: Regular

DATE: 4/4/97
CONTROLS: N/A, N/A, N/A

LOCATION: **Hose Tower, 3rd deck**
OBSERVATIONS: **Background sampling**

NAME: SS# CERT#

TIME		FLOW RATE (LPM)		VOLUME	Fibers/	Fiber Concentration		
						Fibers/	Fibers/	*FIBERS/
Start: 08:59	Total	Start: 12.00	Avg=	Liters=	Fields	mm²	Filter	CC:
End: 10:35	96	End: 12.00	12.00	1152	4 / 100	5.1	2,000	0.002

Method: NIOSH 7400, A rules (Issue #2, 8/15/94) Limit of Detection: 5 2,000

Footnote: F5-Fibers greater than 5µm in length.

SAMPLE # CK075
SAMPLE TYPE: **Blank**
PUMP #
PRIORITY: Regular

DATE: 4/4/97
CONTROLS: N/A, N/A, N/A

LOCATION: **Blank**
OBSERVATIONS:

NAME: SS# CERT#

TIME		FLOW RATE (LPM)		VOLUME	Fibers/	Fiber Concentration		
						Fibers/	Fibers/	*FIBERS/
Start:	Total	Start:	Avg=	Liters=	Fields	mm²	Filter	CC:
End:		End:			0 / 100	< 5.0	< 2,000	< ?

Method: NIOSH 7400, A rules (Issue #2, 8/15/94) Limit of Detection: 5 2,000

Footnote: F1-Actual value of client blank; the results have been blank corrected.

Microscope field area (mm²): 0.00785
Filter size (mm): 25 Effective Filter Area (mm²): 385
Control slide: 93-36 Result (f/mm²) 62.4

Detection Limits of Blank Corrected Fiber Count (Fibers/Field): 0.04
Blank 1: CK075 Blank 2: CK085
Blank Average: 0 / 100

Sampled by: **Rich Carlson** Company: **Clayton Environmental Consultants**
Received by: **Rich Carlson** Date: **4/4/97**
Microscopist: **Rich Carlson** Date Analyzed: **4/4/97** Checked by

Samples are collected and analyzed according to NIOSH 7400 (Issue 8/15/94) and/or State/OSHA Reference Methods via Phase Contrast Microscope (PCM) by NIOSH 582 trained, PAT or AIHA Registry participating analysts. Flow calibration is performed before and after sampling with calibrated rotameters. We are responsible only for our own work and cannot verify the accuracy of air sampling data supplied by customers or of sampling not supervised or observed by Clayton Enviornmental Consultants professionals.

Intralaboratory Sr: (6.4 - 25.5 fibers/100 fields) 0.43; (25.6 -63.7 fibers/100 fields) 0.38; (63.8 -127.4 fibers/100 fields) 0.29; (>127.4 fibers/100 fields) 0.53
Interlaboratory Sr: 0.40

*Fibers per cubic centimeter of air

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Seattle, WA 98134
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AIR SAMPLE DATA

AN AIHA
ACCREDITED
LABORATORY #414

Log # T8446
Project # 75-97281.00.000
Number of Samples: 4

Client: **City of Seattle** PO #:
Job Location: **Fire Station #39** Abatement Firm:

SAMPLE # CK085 SAMPLE TYPE **Blank** PUMP # PRIORITY: Regular	DATE: **4/4/97** CONTROLS: N/A N/A N/A	LOCATION: **Blank** OBSERVATIONS:
NAME:	SS#	CERT#

TIME	FLOW RATE (LPM)	VOLUME	Fibers/	Fiber Concentration		
Start: Total	Start: Avg=	Liters=	Fields	Fibers/ mm²	Fibers/ Filter	*FIBERS/ CC:
End:	End:		0 / 100	< 5.0	< 2,000	< ?
Method: NIOSH 7400, A rules (Issue #2, 8/15/94)			Limit of Detection: 5		2,000	

Footnote: F1-Actual value of client blank; the results have been blank corrected.

Microscope field area (mm²):	0.00785	Detection Limits of Blank Corrected Fiber Count (Fibers/Field):	0.04
Filter size (mm):	25	Effective Filter Area (mm²):	385
Control slide:	93-36	Result (f/mm²)	62.4
Blank 1:	CK075	Blank 2:	CK085
Blank Average:	0 / 100		

Sampled by: **Rich Carlson** Company: **Clayton Environmental Consultants**
Received by: **Rich Carlson** Date: **4/4/97**
Microscopist: **Rich Carlson** Date Analyzed: **4/4/97** Checked by

Samples are collected and analyzed according to NIOSH 7400 (Issue 8/15/94) and/or State/OSHA Reference Methods via Phase Contrast Microscope (PCM) by NIOSH 582 trained, PAT or AIHA Registry participating analysts. Flow calibration is performed before and after sampling with calibrated rotameters. We are sponsible only for our own work and cannot verify the accuracy of air sampling data supplied by customers or of sampling not supervised or observed by Clayton Enviornmental Consultants professionals.
Intralaboratory Sr: (6.4 - 25.5 fibers/100 fields) 0.43; (25.6 -63.7 fibers/100 fields) 0.38; (63.8 -127.4 fibers/100 fields) 0.29; (>127.4 fibers/100 fields) 0.53
Interlaboratory Sr: 0.40

*Fibers per cubic centimeter of air

Clayton Environmental Consultants LABFAX

Log #19529

ANALYZED BY Patricia Lukens

ON 4/3/97

Client: City of Seattle, D.A.S.

cation: Fire Station #39

Job / PO #91031014

SAMPLE #: 1 LAB# 19529.1 SAMPLE LOCATION: O.S. chimney in hose tower

SOURCE : Lagging

Asbestos Containing		HOMOGENEOUS			
Asbestos	Asbestos %	non-asbestos fibers	% other fibers	nonfibrous components	nonfibrous %
Chrysotile	12			Filler & Binder	78
				Paint	10

Description: Gray hard flat material with fibers and paint

Note:

PRELIMINARY REPORT

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Verified by: PJ 4/3/97

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Seattle, WA 98134
(206) 763-7364

ASBESTOS AIR SAMPLE DATA

AN AIHA ACCREDITED LABORATORY #414

Page 1 of 1
Project # 75-97
Log # 97281
Number of Samples: 4

Client : City of Seattle
Abatement Firm: NA
Location: Firestation # 39
Results to:

Sampled by: Rich Carlson Date: 4-4-97
Company: Clayton Env.
Received by: Rich Carlson Date: 4-4-97
Analyzed by: [illegible] Date: 4-4-97
Microscope field area: .00785
Filter size: (circle one) 25mm 37mm

Blank cassettes: CK-075 CK-085
Blank count: B/Lum B/Lum
(AVG.) [illegible] / [illegible]
Blind recount: (as needed) #1 #2 #3
sample # : CN-191
original (f/mm²) 10.19
recount (f/mm²) 7.64
Control slide: 93-36 result: 62.4 f/mm²

SAMPLE # CN-191 DATE 4-4-97 PUMP # HF-004 PRIORITY	Type A Protection Decon Environment	LOCATION: Living Quarters, Weight Room OBSERVATION: Background Sampling					
NAME: NA			SS#		Cert# ---		
TIME Start: 0955 End: 1028 Total 93	FLOW RATE (LPM) Start: 12.0 End: 12.0 Avg= 12.0	Liters= 1,116 l	Fiber/ Field 8/100	Limit of Detection .002	RESULT IN FIBERS/CC: .004		
SAMPLE # CM-270 DATE 4-4-97 PUMP # HF-007 PRIORITY	Type A Protection Decon Environment	LOCATION: Hose Tower, 3rd deck OBSERVATION: Background Sampling					
NAME: NA			SS#		Cert#		
TIME Start: 0959 End: 1035 Total 96	FLOW RATE (LPM) Start: 12.0 End: 12.0 Avg= 12.0	Liters= 1,152 l	Fiber/ Field 4/100	Limit of Detection .002	RESULT IN FIBERS/CC: .002		
SAMPLE # DATE PUMP # PRIORITY	Type Protection Decon Environment	LOCATION: OBSERVATION:					
NAME:			SS#		Cert#		
TIME Start: End: Total	FLOW RATE (LPM) Start: End: Avg=	Liters=	Fiber/ Field	Limit of Detection	RESULT IN FIBERS/CC:		

Sample Types
P-Personal (8Z)
TWA-Time Weighted Average
E-Excursion
M-TEM
D-Decon Entry
H-HEPA Exhaust
P-Pre-Abatement
C-Clearance
X-Aggressive Clearance
I-Inside Enclosure
O-Outside Enclosure
A-Area
G-Glove Bag

Controls
Protection:
D-Pressure demand air
C-Continuous flow air
P-PAPR
F-Full face, HEPA
M-Half mask
V-Gloves
H-Hardhat
O-Coveralls
R-Rubber Boots
G-Goggles

Decontamination:
D-Decon
S-Shower
W-Wipe Load Out
T-Trailer

Environment:
H-HEPA vacuum
N-Negative air
E-Enclosure
M-Mini-Enclosure
O-Outdoors
V-Vacuum Truck

HEALTH HAZARD CONTROL SERVICES
HAZCON INC.
4636 E. Marginal Way So. Suite 215
Seattle, WA 98134
(206) 763-7364

ASBESTOS BULK SAMPLE DATA

An AIHA #414
and
NVLAP #1106
Accredited Laboratory

Number of Samples: 3
Project #:
Log #: 11826

Client Name: **City of Seattle, D.A.S.** Contact: **Gary**
Job Location: **Various** PO #

SAMPLE #: 1
SOURCE: Floor Tile
LAB #: 11826.1 PRIORITY: 2 Hr.
LOCATION: **FS39, Mop sink floor**
MATERIAL DESCRIPTION: **LAYERED**
Orange floor tile with swirls and black asphaltic mastic

RESULTS:

Layer Analyzed Separately: Layer 1

ASBESTOS TYPE	%
Chrysotile	8

OTHER FIBERS	%
Cellulose	3

OTHER MATERIALS	%
Mineral Filler & Binder	89

Note: Insufficient mastic for analysis

SAMPLE #: 2
SOURCE: Floor Tile
LAB #: 11826.2A PRIORITY: 2 Hr.
LOCATION: **FS39, Closet floor**
MATERIAL DESCRIPTION: **LAYERED**
Dark gray floor tile with swirls

RESULTS:

Layer Analyzed Separately: Layer 1
No Asbestos Detected

ASBESTOS TYPE	%

OTHER FIBERS	%
Cellulose	3

OTHER MATERIALS	%
Mineral Filler & Binder	97

Note:

SAMPLE #: 2
SOURCE: Mastic
LAB #: 11826.2B PRIORITY: 2 Hr.
LOCATION: **FS39, Closet floor**
MATERIAL DESCRIPTION: **LAYERED**
Gold pliable mastic

RESULTS:

Layer Analyzed Separately: Layer 2
No Asbestos Detected

ASBESTOS TYPE	%

OTHER FIBERS	%
Cellulose	20

OTHER MATERIALS	%
Filler & Binder	68
Mineral Filler & Binder	10
Asphalt Filler & Binder	2

Note:

SAMPLED BY: Client DATE:
RECEIVED BY: Leslie Wight DATE: 04/20/94
ANALYZED BY: Crystal Wright DATE: 04/20/94

COMPANY: City of Seattle, D.A.S.
SIGNED: Patricia Lukens
Laboratory Manager

Clayton GROUP SERVICES
4636 E. Marginal Way So. Suite 215
Seattle, WA 98134
(206) 763-7364

ASBESTOS BULK SAMPLE DATA

NVLAP #101106-0

Accredited Laboratory

Log #: 23961
Priority: 2 Hour B
Project #: 77-97062.00
Number of Samples: 1

Client Name: **City of Seattle, E.S.D.**

Contact: **Joe Zdenek**

Job Location: **Fire Station #39**

Job/PO#: **9846257**

SAMPLE #: 1

LAB #: 23961.1

SOURCE: **Mortar**

LOCATION: **Chimney, west side**

MATERIAL DESCRIPTION: **HOMOGENEOUS**

Tan coarse chunk

RESULTS:

No Asbestos Detected

ASBESTOS TYPE	PERCENT

OTHER FIBERS	%

OTHER MATERIALS	%
Filler & Binder	100

Note:

SAMPLED BY: Joseph Zdenek DATE: 5/18/1999

COMPANY: City of Seattle, E.S.D.

RECEIVED BY: Mary Richardson DATE: 5/18/1999

ANALYZED BY: Patricia Lukens DATE: 5/18/1999

Laboratory Manager - NVLAP Approved Signatory